

OPTICAL DEMULTIPLEXER WITH MULTI-CHANNEL POWER CONTROL AND TILT COMPENSATION

Abstract of the Disclosure

5 Systems and methods for controlling power of WDM channels in a WDM
receiver. A preamplifier is provided prior to a demultiplexer in the WDM receiver chain.
The gain of the preamplifier may be controlled based on power measurements made on
individual WDM channels. A filter with controllable tilt may be employed to
compensate for amplifier gain tilt and assure that all of the WDM channels remain within
10 the dynamic range of the photodetector and receiver electronics. This provides improved
bit error rate performance.